

NOVEL HUMAN LEPTIN  
RECEPTOR GENE-  
RELATED PROTEIN  
Bailleul et al. PF-0111-3 CON

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5' TGT GGC TTT GGC AGG CTG CCC GGG CCG TGG CAG GAA GCS GGA AGC AGC TGC TGC
      10      19      28      37      46      55
      64      73      82      91      100      109
CCC AAT TCG GGA GAC ATG GCG GGC GTT AAA GGT CTC GTG GCA TTA TCC TTC AGT
      M A G V K A L V A L S F S
      118      127      136      145      154      163
GGG GGT ATT GGA CTG ACT TTT CTT ATG CTG GGA TGT GCG TTA GAG GAT TAT GGC
      G A I G L T F L M L G C A L E D Y S
      172      181      190      199      208      217
GTT TAC TGG CCC TTA TTC GTC CTG ATT TTC CAC GGC ATC TCC CCC ATC CCC CAT
      V Y W P L F V L I F H G I S P I P I
      226      235      244      253      262      271
TTC ATT GCC AAA AGA GTC ACC TAT GAC TCA GAT GCA ACC AGT AGT GCC TGT TGG
      F I A K R V T Y D S D A T S S A C R
      280      289      298      307      316      325
GAA CTG GCA TAT TTC TTC ACT ACT GGA ATT GTT GTT TCT GCC TTT GGA TTT CCT
      E L A Y F F T T G I V V S A F G F P
      334      343      352      361      370      379
GTT ATT CTT GCT CGT GTG GCT GTG ATC AAA TGG GGA GCC TGC GGC CTT GTG TTG
      V I L A R V A V I K W G A C G L V L
      388      397      406      415      424      433
GCA GGC AAT GCA GTC ATT TTC CTT ACA ATT CAA GGG TTT TTC CTT ATA TTT GGA
      A G N A V I F L T I Q G F F L I F G
      442      451      460      469      478      487
AGA GGA GAT GAT TTT AGC TGG GAG CAG TGG TAG CAC TTT ATT CTG ATT ACA GTG
      R G D D F S W E Q W
      496      505      514      523      532      541
CAT TGA ATT TCT TAG AAC TCA TAC TAT CTG TAT ACA TGT GCA CAT GCG GCA TTT
      550      559      568      577      586      595
TAC TAT GAA ATT TAA TAT GCT GGG TTT TTT AAT ACC TTT ATA TAT CAT GTT CAC
      604      613      622      631      640      649
TTT AAG AAA GAC TTC ATA AGT AGG AGA TGA GTT TTA TTC TCA GCA AAT AGA CCT
      658      667      676      685      694      703
GTC AAA TTT AGA TTA TGT TAC TCA AAT TAT GTT ACT TGT TTG GCT GTT CAT GTA

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FIGURE 1A

712 721 730 739 748 757  
 GTC ACG GTG CTC TCA GAA AAT ATA TTA ACG CAG TCT TGT AGG CAG CTG CCA COT  
 766 775 784 793 802 811  
 TAT GCA GTG CAT CGA AAC CTT TTG CTT GGG GAT GTG CTT GGA GAG GCA GAT AAC  
 820 829 838 847 856 865  
 GCT GAA GCA GGC CTC TCA TGA CCC AGG AAG GCC GGG GTG GWT CCC TCT TTK TTT  
 874  
 TGT AGT CCA

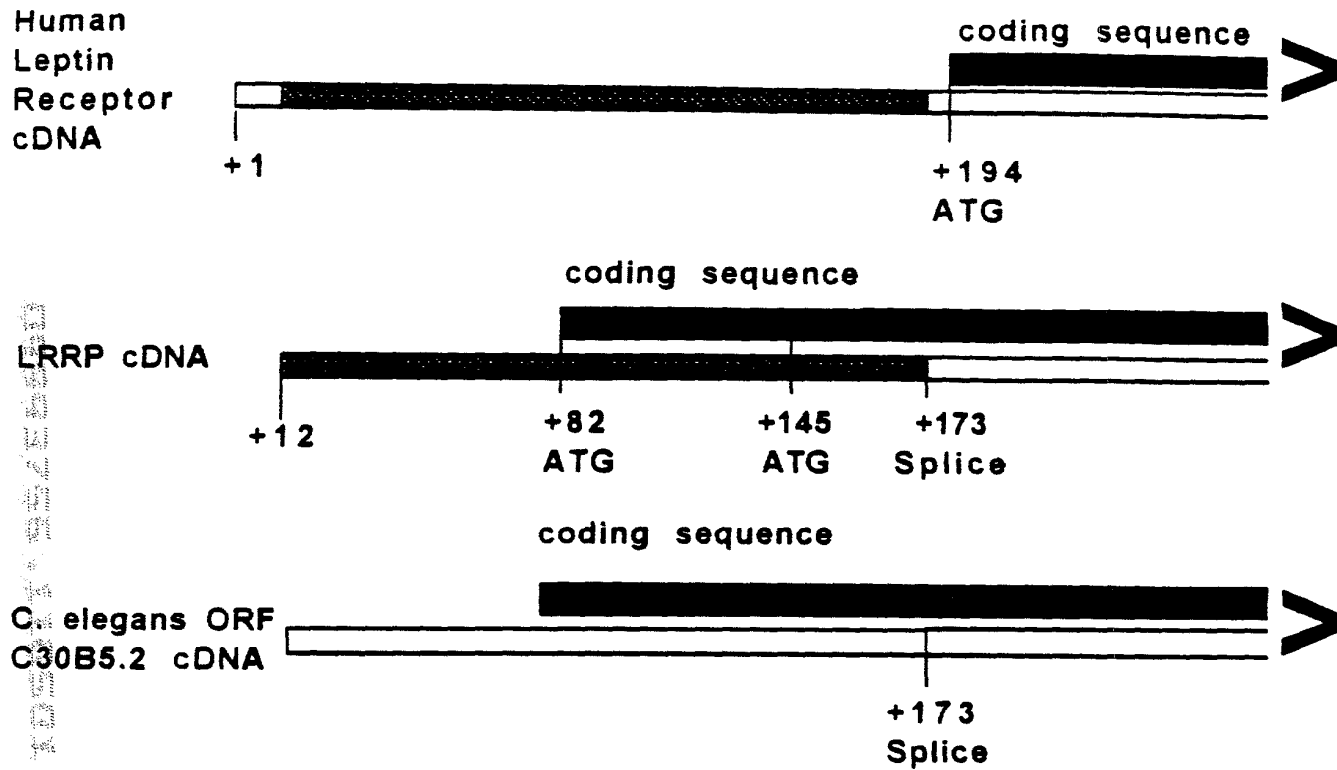
**FIGURE 1B**

NOVEL HUMAN LEPTIN  
RECEPTOR GENE-  
RELATED PROTEIN  
Bailleul et al. PF-0111-3 CON

The Electronic Northern for Clone: 492703  
and Stringency  $\geq 50$

Library	Lib Description	Abun	Est Abun
RATRNOT01	heart, right atrium, 51 F	1	0.0361
SYNCRAB01	synovium, hip, rheumatoid, 68 F	4	0.0779
LIVRNOM01	liver, 49 M, WM	1	0.0254
PLACNOC01	placenta, neonatal F	1	0.0225
BRSTNOT01	breast, 56 F	1	0.0192
HNT2AGT01	nNT-2 cell line, post-mitotic neurons	1	0.0190
HNT2NOT01	nNT-2 cell line, teratocarcinoma, control	1	0.0172
BRSTTUT03	breast tumor, 58 F, match to BRSTNOT05	1	0.0148
COLNFET02	colon, fetal F	1	0.0142
UCMCL5T01	lymphocytes (umbilical cord), treated IL-5	1	0.0125
MELANOM01	melanocytes, M, NORM, WM	1	0.0108
PLACNOM02	placenta, neonatal F, NORM, WM	1	0.0056

FIGURE 2



\* Numbering relative to human leptin receptor

Hatched area represents identical sequences

**FIGURE 3**

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1  M - - - - - - - - - - - - - - - A G V K A L V A L S F S G A SEQ ID NO-1
2  M C C H I H I Q C F D C C S M K N T I I A V A A L A F A G V SEQ ID NO-3
3  M - - - - - - M E F K V S P L T K I I - - - - - S L S G F SEQ ID NO-4

16 I G L T F L M - - L G C A L E D Y G V Y W P L F V L I F H G SEQ ID NO-1
31 V G L T F L V - - L G C A L P R Y G T W T P M F V I T E Y V SEQ ID NO-3
19 L A L G F L L V I L S C A L - - F H N Y Y P L E D I L I F L SEQ ID NO-4

44 I S P I P H F I A K R V T - Y D S D - - - A T S S - A C R E SEQ ID NO-1
59 L S P V P L L I A R R - - - F Q E D - - - M T G T N A C I E SEQ ID NO-3
47 L A P I R N T I F N A G N K Y H T S D F M S D S S N T G Q D SEQ ID NO-4

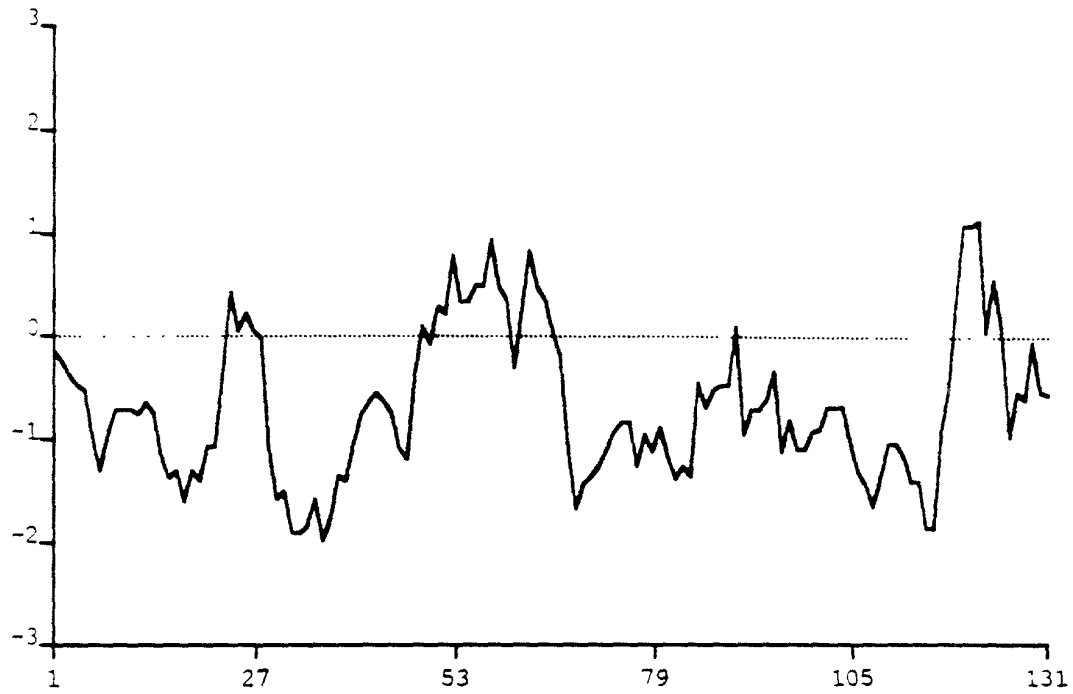
69 L A Y F F T T G I V V S A F G F P V I L A R V A V I K W G A SEQ ID NO-1
83 L A L F I T T G I V I S A F A L P I V L A H A G T I A M S A SEQ ID NO-3
77 L A H F L T G M L V T S G I A L P V V F Y H C Q L I G H L S SEQ ID NO-4

99 C G L V L A G N A V I F L T I Q G F F L I F G R G D D F S W SEQ ID NO-1
113 C F L I F I A N S I N F S V I I F Y F R I F N G E D M N G M SEQ ID NO-3
107 Q I M C M I G G L I I Y S S I V I F K W F F K K D F N E D D SEQ ID NO-4

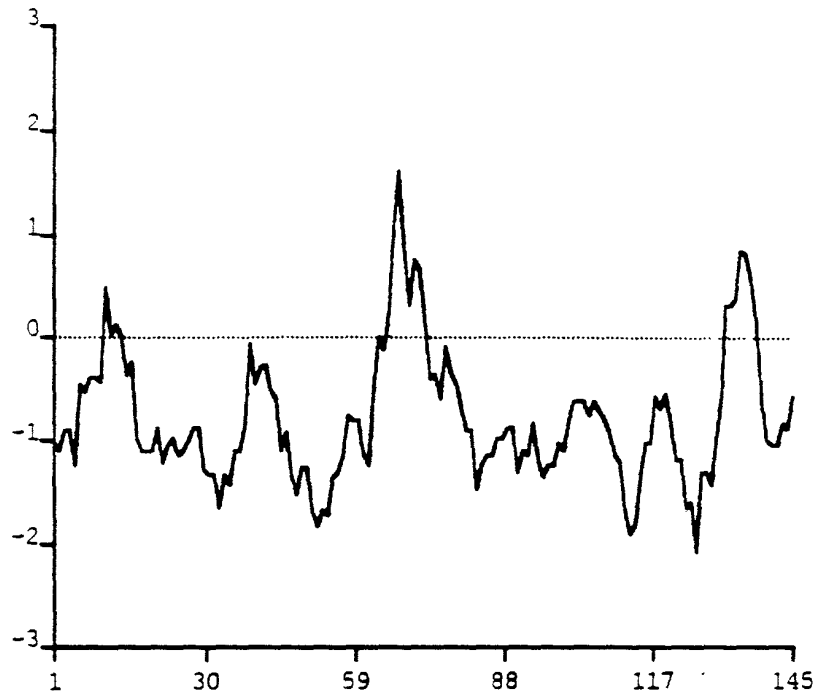
129 E Q W SEQ ID NO-1
143 S L W SEQ ID NO-3
137 S L F G SEQ ID NO-4

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FIGURE 4

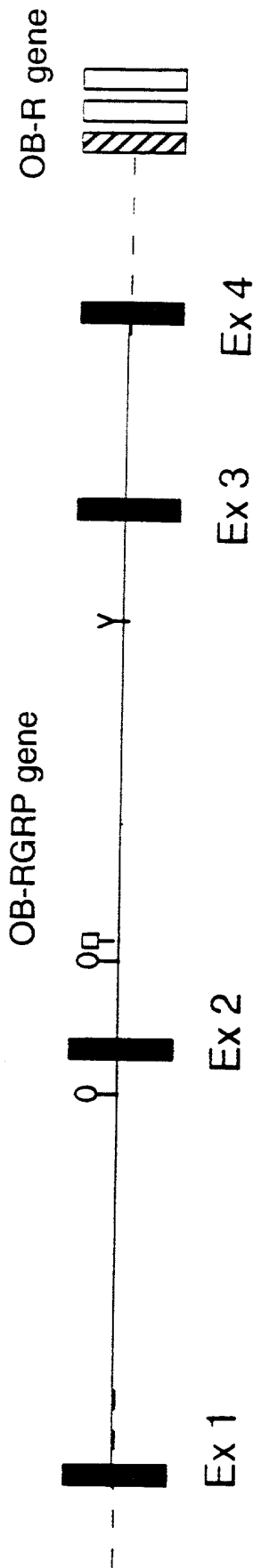


**FIGURE 5**



**FIGURE 6**

# Human genomic organization of OB-RGRP



## Exon/intron junctions of OB-RGRP gene

<b>MetAlaGlyValLysA</b> ATGGCGGGCGTTAAAGgtacatcgcg	<b>INTRON 1</b> 4.3 KB	<b>laLeuValAlaLeuSer</b> cttttggttttatttttcacagCTCTCGTGGCAATATATCT
<b>AlaLeuGluAspTyrGl</b> GCCTTAGAGGATTATGGgtaagtt	<b>INTRON 2</b> 4.5 KB	<b>yValTyrTrpProLeu</b> (t)10ggatttttgctgggtccaaetgacagCGTTTATATGCCCCCTTAT
<b>LeuAlaArgValAlaVal</b> CTTGCTCGTGTGGCTGTGgtaagttt	<b>INTRON 3</b> 2.0 KB	<b>IleLysTrpGlyAla</b> tcctctttttcttctgtctttcagATCAAAATGGGGAGCC

FIGURE 7



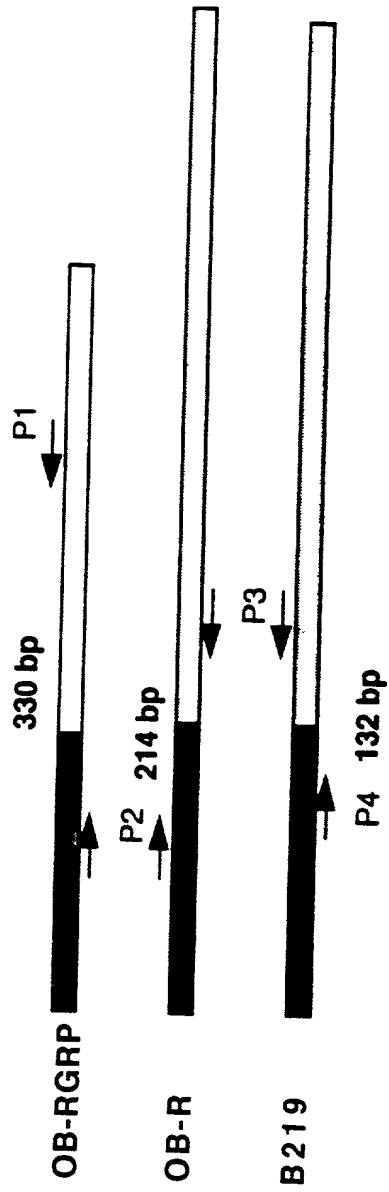


FIGURE 8

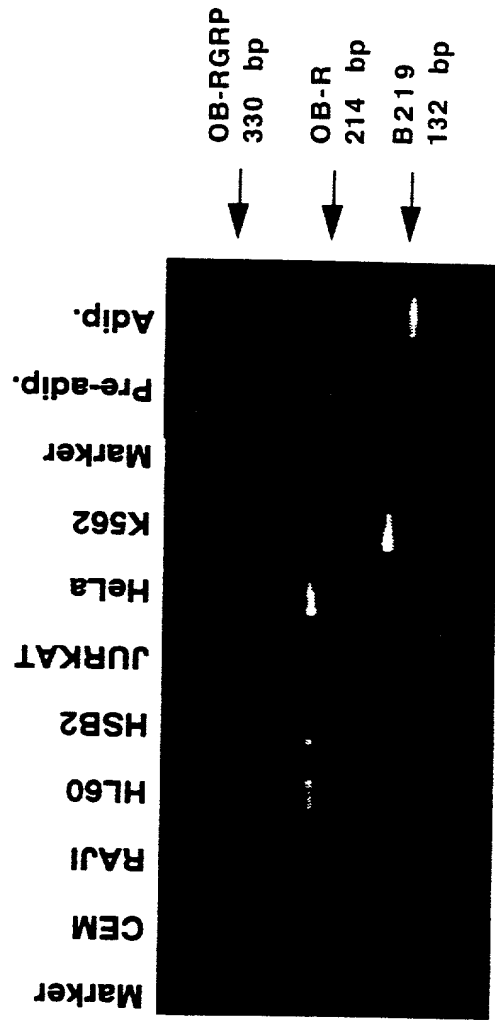


FIGURE 9